

real. Mr. W. Tooke, Mr. Bell, Hon. Mr. Phipps, Mr. G. P. R. James, and others, addressed the meeting. We regretted, in the long list of toasts, the absence of any recognition of Art. We trust this omission will be rectified next year.

Barford's Panorama.—A charming view of the "Lakes of Killarney" has been added to "The Arctic Regions," in Leicester-square. It is painted by Mr. Burford, assisted by Mr. H. C. Selous, from recent sketches, and gives a most pleasant notion of the land of the lake,—the wonder of Kerry, and the boast of Ireland.

PROPOSED BUILDINGS FOR THE SCOT-TISH ACADEMY AND NATIONAL GAL- LERY, EDINBURGH.

MR. THOMAS HAMILTON has published a letter to the Premier,* objecting to the course which is being pursued by the Board of Manufactures in respect of the proposed National Gallery, on the ground mainly that living artists will receive no legal or permanent position under the contemplated Act. He likewise objects to the erection of a single building on the Mound at Edinburgh, as now proposed, instead of two, as originally intended, and appends plans and views explanatory of the design prepared by him in accordance with the instructions of the Academy. Since the appearance of Mr. Hamilton's pamphlet the Academy have passed a strong resolution, disapproving of the statement made, and attributing the proceeding to a personal motive on his part, that of having his own designs carried out. The structures he proposes, one on each side of a carriage-way behind the Royal Institution, and leading to the new Free Church College, are of the Doric order, the Temple of Theseus being the example followed. The principal gallery in each is an elongated octagon, 70 feet long and 40 feet wide. Mr. Hamilton sets it forth as an advantage, that the "pronaos and portico (of the temple adopted) can be adapted and restored with perfect exactness in dimensions and proportions."

NOTES IN THE PROVINCES.

THE district church of Amiotts, Althorpe, Lincolnshire has fallen to the ground. The rectory is endeavouring to raise 800*l.* to rebuild it.—The last stone of a new graving dock, at the north corner of the dockyard at Deptford, was laid on Saturday week. It is 305 feet long and 88 feet broad, and the entrance, which is closed with a caisson, is 65 feet.—For the better prevention of fire at Windsor Castle, waterworks of some magnitude have just been commenced by the Woods and Forests. The main pipe from the Thames, in Datchet-lane, to the grand reservoir at Cranbourne-hill, in Windsor Great Park, will be upwards of three miles in length. This reservoir, which will contain at least a million gallons of water, is being constructed on an eminence several feet above the height of the Round Tower at the castle. Connected with the main pipe, communicating with this reservoir, there are to be numerous fire plugs all around and in the immediate vicinity of the castle (the quadrangle, the terraces, the upper and lower foundations, &c.), to which hose can be attached in case of fire; the water, when required, being thrown by its own force, from its height in the reservoir, over the summit of the highest tower. A steam-engine of 15-horses' power is being erected on the bank of the Thames in Datchet-lane, not far from the railway station, for forcing the water from the river (after being filtered through gravel) to the reservoir. It is not expected that the expense of these works will exceed 10,000*l.*—The spire at the west end of Norton-by-Gaulby Church was on the 13th inst. again struck with lightning or a fire-ball, and the whole of the spire, which was seriously damaged by the lightning in 1843, and then repaired, has now been knocked down as low as the battlements. Part of this spire fell through the roof of the church, destroying a portion of the gallery. The few inhabitants of the parish had just

succeeded in paying off the debt (200*l.*) incurred by the previous accident.—It is proposed to erect a new church at Newton, Southampton, to be called St. Matthew's. The cost is to be about 2,300*l.*, of which the Rev. F. Russell, M.A., has presented 1,200*l.*, besides a repair fund, and an endowment of 1,000*l.* Mr. T. Chamberlayne, of Cranbury-park, has given 250*l.*, and the fee simple of the site. The inhabitants and friends of the church in general are now solicited for the requisite remainder. The design was furnished by Messrs. Hivner and Badborough, of Southampton, architects. The building is to have 780 sittings, or 1,100 if with galleries, and one-third are to be free.—The sub-committee of the corporation of the poor of Bristol, to report on the designs submitted for alterations and improvements in the Stapleton Asylum, have recommended for adoption that bearing the motto, "*Atque non fractis*," the authors of which are Messrs. Pope and Co. The designs have also been approved by the committee of management.—The parish church of Waltham-on-the-Wolds has lately undergone considerable alteration, and is rapidly progressing towards completion. The chancel has been entirely rebuilt, at some expense.—It has been resolved to build new and enlarged church schools at Melton.—The foundation stone of the new church of St. Stephen, to be erected in Crown-street, Edge Hill, Liverpool, was laid on Friday week, by the Bishop of Chester. When completed, it will hold upwards of 1,000 persons; 300 sittings free, and 100 let at a low rental. The sum of 5,500*l.* has been collected, 5,000*l.* of which will be expended on the church, including 1,150*l.* cost of land. 1,500*l.* more are to be raised for endowment. Mr. G. G. Scott is the architect, and the design is in the decorated Gothic style.

ELECTRO-TELEGRAPHIC PROGRESS.

M. W. EISENLOH, superintendent of the electric telegraphs in the Grand Duchy of Baden, has adopted a method of rendering the battery more constant in its action, and less liable to carbonaceous from too little or too much acid. The employment of a solution of bitartrate of potash, in acidulated water, for the zinc couples of a Daniell's battery, and of a moderately concentrated solution of sulphate of copper, for the copper element, he says, has fully and effectually answered the desired object.—Mr. Bains' electro-chemical telegraph has been exhibited at the Elysée, by order of the President of the French. Dr. Lardner and other Englishmen were present, as were the French Minister of the Interior, and Louis Napoleon himself, M. Leverrier, and others. The prince is said to have been astonished by the celerity of its operation. A despatch containing 4,327 letters was conveyed in the space of fifty-five seconds, being at the rate of nearly 1,500 letters a minute.—To the immense power placed in the hands of individuals, and its great liability to abuse, in such an establishment as the electric telegraph when ramified throughout a country and under the control of a mere money-making company, we have repeatedly drawn attention. The wranglings of the present telegraph company with inventors and news-agents in our own courts of law, even independently of anything like specific charges of abuse (though not a few of these are now on official record), will, if we mistake not, open the eyes of the public at large to the importance of our warnings. The company certainly have not acted wisely for themselves in their late line of policy. As lately observed by Sir F. Piesager, in showing cause against the rule granted to show cause why a criminal information should not be filed against Messrs. Willmer and Smith, news-agents,—"considering the circumstances which appear on the affidavits filed, one cannot but admire the boldness, rather than the prudence, of the Electric Telegraph Company, in calling the attention of the public to the enormous power with which they are intrusted, and the danger which must result from their abuse." In respect to the rule in question, he had no doubt, from his knowledge of the principle on which the Court interfered in granting criminal informations, that the result of the present inquiry would be that the rule would be discharged. Lord

Campbell, on hearing both parties, did discharge the rule, but the whole merits still remain to be discussed in another shape, when charges of a serious nature, it appears, will be urged in self-defence against the telegraph management.

SOCIETY OF ARTS.

At the meeting of the 15th May, a paper was read "On Siemens's Regenerative Condenser." The origin of this condenser was the suggestion to the author of Mr. Graham, of Mayfield Works, "to recover the heat from the condensing water in the form of a reduced amount of boiling hot water." It consists of an upright rectangular trunk of cast-iron, the lower end of which is cylindrical, and contains a working piston, which performs two strokes for each one of the engine. In the trunk is a set of copper plates, upright and parallel to each other,—the intervening spaces being the same as the thickness of the plates, viz., between $\frac{1}{4}$ th and $\frac{1}{4}$ th of an inch. The upper extremity of the condenser communicates on one side with the exhaust-port of the engine, and on the other through a valve with the bottom. The plates are fastened together by five or more thin bolts, with small distance-washers between each plate. There is a lid at the top of the trunk, by removing which the set of plates can be lifted out. Immediately below the plates the injection-pipe enters. The action of the condenser is as follows:—Motion is given to the piston. At the moment that the exhaust-port of the engine opens, the plates are completely immersed in water, a little of which has covered the passage above the plates, and is, together with the air present, carried off by the rush of steam into the hot well, the excess of steam escaping into the atmosphere. The water then, in consequence of the downward motion of the piston, recedes between the plates, exposing them gradually to the steam, which condenses on them. Their upper edges are surrounded by steam of atmospheric pressure, and become rapidly heated to about 210 degrees. The emersion of the plates still continuing, the steam is constantly brought into contact with fresh cool surface, by which the greater portion of it is condensed, until, as the piston descends, the injection enters and completes the vacuum. This is done by the time the working piston of the engine has accomplished $\frac{1}{4}$ th of its stroke. The upper extremities of the plates become heated to near 210 degrees, and the lower to about 160 degrees. Taking the initial temperature of the condensing water at 60 degrees, the final temperature at 210 degrees, the latent heat of steam at 212 degrees, 960 units, the quantity of water required is 6.6 lb. to condense 1 lb. of steam of atmospheric pressure. The common injection condenser (supposing the temperature of the condensed steam to be 110 degrees) requires 21.2 lb. in place of 6.6 lb.

USURPATION OF PATENT RIGHTS.

A WORKING-MAN has justly complained in your paper of the expenses imposed on poor inventors who take out patents, which, in the most simple cases, amount to 130*l.*

There can be no question that such a tax is a great discouragement to the ingenuity of originators, as well as a clog upon art. There is, however, a much heavier charge and still greater obstacle to be encountered by every inventor when he has taken out a patent, namely, the reluctance of the public to acknowledge the patentee's right to license fees, which fees are his only means of requit for expenses already incurred, both in cost of the royal signet, and of bringing out and fabricating the material.

Sir, I took out a patent in 1843 for chimney flue linings in terra-cotta or stony ware, the structure being a tube or cylinder (oval or circular), moulded in lengths of 20 inches or 3 feet, which, being built in the solid wall, assured a better draught, a perfect security against fire (as all communication with the woodwork, such as plugs, is cut off by the iron stave lining), and an immunity from smoke in apartments, besides greater facility in cleaning.

* A letter to the Right Hon. Lord John Russell, M.P., all the President of the Council relative to the Arts in Scotland, Edinburgh, Grant, London, Wm.